2. MSA-RGD, in which the RGD sequence (VRGDF, SEQ ID NO: 1) replaces the MSA sequence between Cys 53 and Cys 62·

3. MSA-11B3, in which the 11-B3 peptide sequence (PSTLRAQ, SEQ ID NO: 3) replaces the MSA sequence between Cys 53 and Cys 62

4. MSA-1H5, in which the 1-H5 peptide sequence (HTKQIPRHIYSA, SEQ ID NO: 4) is inserted between Glu 57 and Ser 58 within the Cys 53 and Cys 62 loop of MSA

5. MSA-9G5, in which the 9-G5 peptide sequence (DSHKRLK, SEQ ID NO: 5) replaces the MSA sequence between Cys 53 and Cys 62

6. MSA-myc, in which the Myc epitope peptide sequence (EQKLISEEDL, SEQ ID NO: 2) is inserted between Glu 57 and Ser 58 within the Cys 53 and Cys 62 loop of MSA (negative control)

In the claims:

For the convenience of the Examiner, all elected claims (1-27, 34, and 49-52), whether or not amended, are presented below.

1. (**Reiterated**) A chimeric polypeptide comprising a serum albumin protein (SA) having a biologically active heterologous peptide sequence inserted therein, wherein the chimeric peptide exhibits increased biological activity relative to the heterologous peptide sequence itself.

2. (**Reiterated**) A chimeric polypeptide having the structure A-B-C, wherein:

A represents a first fragment of serum albumin (SA);

B represents a biologically active heterologous peptide sequence; and

C represents a second peptide fragment of SA;

wherein the chimeric peptide exhibits increased biological activity relative to the heterologous peptide sequence itself.

3. (**Reiterated**) A chimeric polypeptide comprising:

a first peptide fragment, comprising an N-terminal fragment of serum albumin (SA) protein;

a second peptide fragment, comprising a biologically active heterologous peptide sequence, and

a third peptide fragment, comprising a C-terminal fragment of SA;

wherein the chimeric peptide exhibits increased biological activity relative to the heterologous peptide sequence itself.

4. (**Reiterated**) The chimeric polypeptide of claim 1, 2, or 3, wherein the heterologous peptide sequence comprises a fragment of an angiogenesis-inhibiting protein or polypeptide.

5. (**Reiterated**) The chimeric polypeptide of claim 4, wherein said angiogenesis-inhibiting protein or polypeptide is selected from the group consisting of angiostatin, endostatin, and peptide fragments thereof.

6. (**Reiterated**) The chimeric polypeptide of claim 1, 2, or 3, wherein the heterologous peptide sequence binds to a cell surface receptor protein.

8. (**Reiterated**) The chimeric polypeptide of claim 6, wherein the receptor protein is a tyrosine-kinase receptor.

12. (**Reiterated**) The chimeric polypeptide of claim 1, 2, or 3, wherein the chimeric polypeptide binds to an extracellular receptor or an ion channel.

13. (**Reiterated**) The chimeric polypeptide of claim 12, wherein the chimeric polypeptide is an agonist of said receptor or ion channel.

14. (**Reiterated**) The chimeric polypeptide of claim 12, wherein the chimeric polypeptide is an antagonist of said receptor or ion channel.

15. (**Reiterated**) The chimeric polypeptide of claim 1, 2, or 3, wherein the chimeric polypeptide induces apoptosis.

16. (**Reiterated**) The chimeric polypeptide of claim 1, 2, or 3, wherein the chimeric polypeptide modulates cell proliferation.

17. (**Reiterated**) The chimeric polypeptide of claim 1, 2, or 3, wherein the chimeric polypeptide modulates differentiation of cell types.

18. (**Reiterated**) The chimeric polypeptide of claim 1, 2, or 3, wherein the heterologous peptide sequence comprises between 4 and 400 residues.

19. (**Reiterated**) The chimeric polypeptide of claim 1, 2, or 3, wherein the heterologous peptide sequence comprises between 4 and 200 residues.

20. (**Reiterated**) The chimeric polypeptide of claim 1, 2, or 3, wherein the heterologous peptide sequence comprises between 4 and 100 residues.

21. (**Reiterated**) The chimeric polypeptide of claim 1, 2, or 3, wherein the heterologous peptide sequence comprises between 4 and 20 residues.

22. (**Reiterated**) The chimeric polypeptide of claim 1, 2, or 3, wherein the tertiary structure of the chimeric polypeptide is similar to the tertiary structure of native SA.

23. (**Reiterated**) The chimeric polypeptide of claim 1, wherein the inserted peptide sequence replaces a portion of native SA sequence.

24. (**Reiterated**) The chimeric polypeptide of claim 23, wherein the inserted peptide sequence and the replaced portion of native SA sequence are of unequal length.

25. (**Reiterated**) The chimeric polypeptide of claim 1, 2, or 3, wherein the half-life of the polypeptide in the blood is no less than 14 days.

26. (**Reiterated**) The chimeric polypeptide of claim 2, 3, or 3, wherein the half-life of the polypeptide in the blood is no less than 10 days.

27. (**Reiterated**) The chimeric polypeptide of claim 1, 2, or 3, wherein the half-life of the polypeptide in the blood is no less than 50% of the half-life of native SA.

34. (**Reiterated**) A pharmaceutical preparation comprising a pharmaceutically acceptable excipient and the chimeric polypeptide of claim 1, 2, or 3.

B6

49. (**Amended**) The chimeric polypeptide of claim 1, wherein the biologically active heterologous peptide sequence is inserted into a cysteine loop of the serum albumin protein.

50. (**Reiterated**) The chimeric polypeptide of claim 49, wherein the cysteine loop is selected from Cys53-Cys62, Cys75-Cys91, Cys90-Cys101, Cys245-Cys253, Cys266-Cys279, Cys360-Cys369, Cys461-Cys477, Cys476-Cys487, and Cys558-Cys567.

B7

51. (**Amended**) The chimeric polypeptide of claim 23, wherein the biologically active heterologous peptide sequence replaces a portion of a cysteine loop of the serum albumin protein.

52. (**Reiterated**) The chimeric polypeptide of claim 51, wherein the cysteine loop is selected from Cys53-Cys62, Cys75-Cys91, Cys90-Cys101, Cys245-Cys253, Cys266-Cys279, Cys360-Cys369, Cys461-Cys477, Cys476-Cys487, and Cys558-Cys567.

The claims presented above incorporate changes as indicated by the marked-up versions below.

49. (**Amended**) The chimeric polypeptide of claim 1, wherein the biologically active heterologous peptide sequence is inserted into a cysteine loop of the serum ~~albumen~~ albumin protein.

51. (**Amended**) The chimeric polypeptide of claim 23, wherein the biologically active heterologous peptide sequence replaces a portion of a cysteine loop of the serum ~~albumen~~ albumin protein.

REMARKS

Claims 1-52 constitute the pending claims in the present application. Among them, claims 28-33, and 35-48 are directed to non-elected inventions and are withdrawn from further consideration. Applicants will cancel these claims upon indication of allowable subject matter.